

ABSTRAK

Latar belakang : Kadar kreatinin dalam darah sering digunakan sebagai indikator fungsi ginjal. Proses penyimpanan dan pengolahan sampel dapat mempengaruhi hasil pengujian. Pemeriksaan kadar kreatinin sering terjadi penundaan sentrifugasi. Alasan penundaan ini disebabkan karena pengambilan sampel yang lokasinya jauh dari laboratorium, kerusakan alat pemeriksaan dan jumlah pasien yang cukup banyak, sehingga penundaan sentrifugasi dapat terjadi hingga berjam-jam.

Tujuan : Penelitian ini bertujuan untuk mengetahui bagaimana perbedaan kadar kreatinin darah pada tabung lithium heparin yang segera disentrifugasi dan ditunda selama 3 jam.

Metode : Penelitian ini merupakan jenis penelitian observasi analitik dengan desain *One Group Pretest-Posttest Design*. Populasi pada penelitian ini adalah mahasiswa Diploma III semester 6 Jurusan Teknologi Laboratorium Medis Politeknik Kesehatan Kementerian Kesehatan Yogyakarta dengan sample plasma darah vena.

Hasil : hasil penelitian menunjukkan bahwa kadar kreatinin yang mengalami penundaan sentrifugasi 3 jam cenderung lebih rendah dibandingkan sampel yang segera dilakukan sentrifugasi. Rerata kadar kreatinin pada sampel yang segera disentrifugasi sebesar 1,1 mg/dL, sedangkan pada sampel yang mengalami penundaan sentrifugasi 3 jam sebesar 1,0 mg/dL. Data normalitas menunjukkan hasil berdistribusi normal sehingga dilakukan uji *Paired Sampel T-Test*. Hasil uji Paired Sampel T-Test menunjukkan nilai 0,015 ($p < 0,05$) yang artinya ada perbedaan yang signifikan.

Kesimpulan : Terdapat perbedaan yang signifikan terhadap hasil pemeriksaan kadar kreatinin darah pada tabung lithium heparin yang segera disentrifugasi dan ditunda selama 3 jam.

Kata Kunci : Plasma Darah, Kreatinin, Lithium Heparin, Sentrifugasi

ABSTRACT

Background: Blood creatinine levels are often used as an indicator of kidney function. The process of storing and processing samples can affect the test results. Examination of creatinine levels often delays centrifugation. The reason for this delay is due to sampling that is located far from the laboratory, damage to examination equipment and a large number of patients, so that centrifugation delays can occur for hours.

Objective: This study aims to determine how the difference in blood creatinine levels in lithium heparin tubes that are immediately centrifuged and delayed for 3 hours.

Method: This study is a type of analytical observational research with *One Group Pretest-Posttest Design*. The population in this study were 6th semester Diploma III students of the Medical Laboratory Technology Department of the Health Polytechnic of the Ministry of Health Yogyakarta with venous blood plasma samples.

Results: The results showed that creatinine levels that experienced a 3-hour centrifugation delay tended to be lower than samples that were immediately centrifuged. The mean creatinine level in samples that were immediately centrifuged was 1.1 mg/dL, while in samples that experienced a 3-hour centrifugation delay was 1.0 mg/dL. Normality data showed normal distributed results so that the Paired Sample T-Test test was conducted. The results of the *Paired Sample T-Test* test showed a value of 0.015 ($p < 0.05$) which means there is a significant difference.

Conclusion: There is a significant difference in the results of the examination of blood creatinine levels in lithium heparin tubes that are immediately centrifuged and delayed for 3 hours.

Keywords: Blood Plasma, Creatinine, Lithium Heparin, Centrifugation